

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 July 2005 (14.07.2005)

PCT

(10) International Publication Number
WO 2005/064281 A1

(51) International Patent Classification⁷: G01D 5/14, 5/16

(21) International Application Number:

PCT/EP2004/014867

(22) International Filing Date:

30 December 2004 (30.12.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

03030030.5	30 December 2003 (30.12.2003)	EP
60/533,276	30 December 2003 (30.12.2003)	US
60/598,111	2 August 2004 (02.08.2004)	US
60/612,562	23 September 2004 (23.09.2004)	US
60/617,890	12 October 2004 (12.10.2004)	US
60/626,359	9 November 2004 (09.11.2004)	US
60/629,589	19 November 2004 (19.11.2004)	US

(71) Applicant (for all designated States except US): **NCT ENGINEERING GMBH** [DE/DE]; Otto-Hahn-Strasse 24, 85521 Ottobrunn (DE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **MAY, Lutz** [DE/DE]; Wolfratshauser Str. 23a, 82538 Geretsried-Gelting (DE).

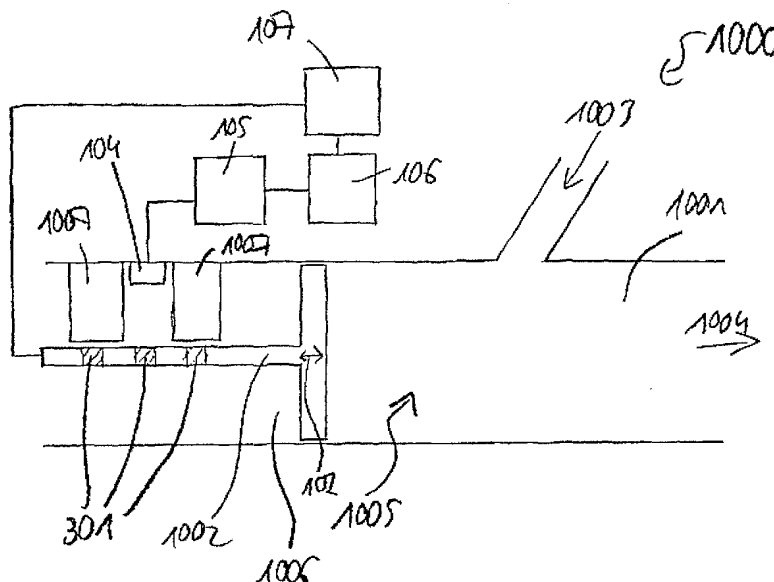
(74) Agent: **HUENGES, Martin, Dr.**; Maiwald Patentanwalts GmbH, Elisenhof, Elisenstrasse 3, 80335 Munich (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

[Continued on next page]

(54) Title: POSITION SENSOR



(57) Abstract: A position sensor device for determining a position of a reciprocating object, comprising at least one magnetically encoded region fixed on a reciprocating object, comprising at least one magnetic field detector, and comprising a position determining unit. The magnetic field detector is adapted to detect a signal generated by the magnetically encoded region when the magnetically encoded region reciprocating with the reciprocating object passes a surrounding area of the magnetically encoded region. The position determining unit is adapted to determine a position of a reciprocating object based on the detected magnetic signal.



SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*